Amendments to The Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (currently amended): A computer-program-based method for providing a feedback control for a given set of entry and target control quantities χ ~~and μ~~ and u of a system model, the method comprising a repetition of the following steps:

   a} <u>providing a time-dependent simulation system model of a system in a computer memory for simulating performance of real hardware for a number n of iterations;</u>

   ~~a~~<u>b</u>) providing a <u>predetermined</u> starting value χ'_1 for each of said entry control quantities χ in said model,

   ~~b~~<u>c</u>) running the model based on said starting values and obtaining a resulting actual value for each of said target control ~~quantities μ~~ <u>quantities u</u>,

   ~~c~~<u>d</u>) using the values obtained ~~for μ~~ <u>for u</u> to define a new start value for χ for use in a repeated modeling step,

   whereby the method comprises the following formula to calculate the respective next value of the entry control quantities:

$$x'_{n+1} = \frac{v_n}{1 + \rho_n(1 - v_n)} \qquad \text{~~6a)~~}$$

where ρ_n is ~~a suitable parameter~~ <u>an accumulated wait time divided by an accumulated processing time of the system</u> and

$$v_n = (n+1)u - n u_n \qquad \text{~~(6b)~~}$$

χ'_n ~~is~~ being valid for the next iteration only ~~while μ_n~~ while u_n
and ρ_n are values measured from the beginning of the simulation.

2. (currently amended): The method according to claim 1 further
comprising simulating a multi-processor system in which said
control quantities are ~~CP~~ central processor utilizations in a
computer system model wherein utilization is the percentage of
time the central processor utilizes for processing.

3. (currently amended): A computer program product for providing
a feedback control for a given set of entry and target control
quantities χ ~~and μ~~ and u of a system model, said computer
program product comprising:

a computer readable medium having recorded thereon computer
readable program code performing the method comprising a
repetition of the following steps:

a) providing a time-dependent simulation system model of a
system in a computer memory for simulating performance of real
hardware for a number n of interations;

~~a~~b) providing a predetermined starting value χ'_1 for each
of said entry control quantities χ in said model,

~~b~~c) running the model based on said starting values and
obtaining a resulting actual value for each of said target
control ~~quantities μ~~ quantities u,

~~c~~d) using the values obtained ~~for μ~~ for u to define a new
start value for χ for use in a repeated modeling step,

whereby the method comprises the following formula to
calculate the respective next value of the entry control
quantities:

$$\chi'_{n+1} = \frac{v_n}{1+\rho_n(1-v_n)}$$

~~(6a)~~

where ρ_n is ~~a suitable parameter~~ <u>an accumulated wait time</u> <u>divided by an accumulated processing time of the system</u> and

$$v_n = (n+1)u - nu_n \qquad \text{~~(6b)~~}$$

χ'_n ~~is~~ <u>being</u> valid for the next iteration only ~~while u_n~~ <u>while u_n</u> and ρ_n are values measured from the beginning of the simulation.

4. (currently amended): The computer program product according to claim 3 wherein the method further comprises simulating a multi-processor system in which said control quantities are ~~CP~~ <u>central processor</u> utilizations in a computer system model <u>wherein utilization is the percentage of time the central</u> <u>processor utilizes for processing</u>.

5. (currently amended): A computer system for providing a feedback control for a given set of entry and target control quantities χ ~~and u~~ <u>and u</u> of a system model, the computer system comprising:

    <u>a) a computer memory having a time-dependent simulation</u> <u>system model of a system for simulating performance of real</u> <u>hardware for a number n of interations;</u>

    ~~a~~<u>b</u>) a starting value χ'_1 for each of said entry control quantities χ in said model,

    ~~b~~<u>c</u>) a control element running the model based on said starting values and obtaining a resulting actual value for each of said target control ~~quantities u~~ <u>quantities u</u>,

    ~~c~~<u>d</u>) said control element using the values obtained ~~for u~~ <u>for u</u> to define a new start value for χ for use in a repeated modeling step,

      whereby the control element uses the following formula to

calculate the respective next value of the entry control
quantities:

$$x'_{n+1} = \frac{v_n}{1+\rho_n(1-v_n)} \qquad \text{(6a)}$$

where ρ_n is ~~a suitable parameter~~ <u>an accumulated wait time
divided by an accumulated processing time of the system</u> and

$$v_n = (n+1)u - nu_n \qquad \text{(6b)}$$

χ'_n ~~is~~ <u>being</u> valid for the next iteration only ~~while μ_n~~ <u>while u_n</u>
and ρ_n are values measured from the beginning of the simulation.

6. (currently amended): The computer system according to claim 5
wherein said control element simulates a multi-processor system
in which said control quantities are ~~CP~~ <u>central processor</u>
utilizations in a computer system model <u>wherein utilization is
the percentage of time the central processor utilizes for
processing</u>.